

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number  
**WO 2005/090484 A1**

(51) International Patent Classification<sup>7</sup>: **C09B 62/09,**  
62/513, 62/475

(21) International Application Number:  
PCT/EP2005/051044

(22) International Filing Date: 9 March 2005 (09.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
04101144.6 19 March 2004 (19.03.2004) EP

(71) Applicant (for all designated States except US): **CIBA  
SPECIALTY CHEMICALS HOLDING INC.** [CH/CH];  
Klybeckstrasse 141, CH-4057 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TZIKAS, Athanasios** [CH/CH]; Unterer Rütshetenweg 36, CH-4133 Pratteln (CH). **ROENTGEN, Georg** [DE/DE]; Pochgasse 13, 79104 Freiburg (DE). **CHRISTNACHER, Hubert Jean Luc** [FR/FR]; 4, rue de l'église, F-68440 Dietwiller (FR).

(74) Common Representative: **CIBA SPECIALTY CHEMICALS HOLDING INC.**; Patent Department, Klybeckstrasse 141, CH-4057 Basel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

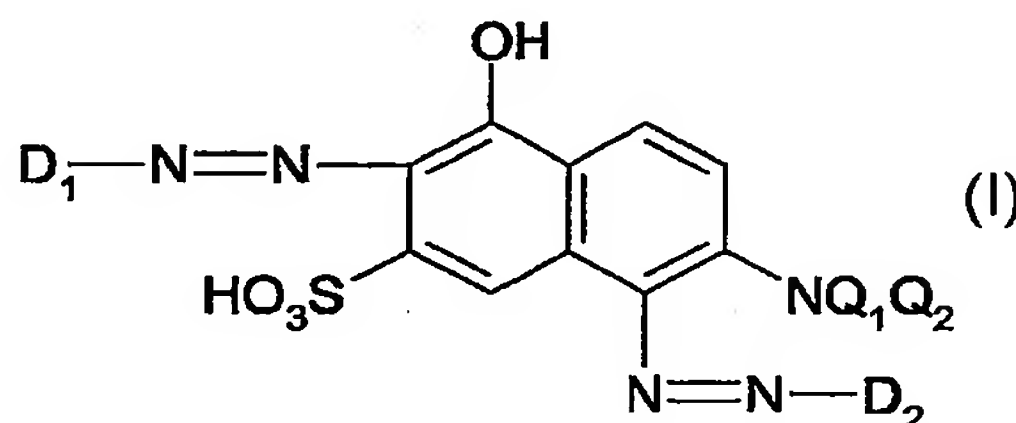
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

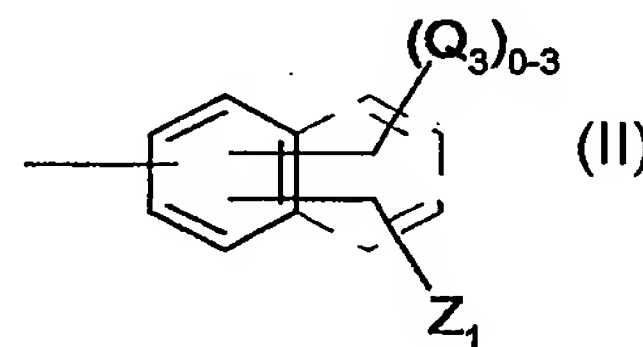
- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FIBRE-REACTIVE DYES, THEIR PREPARATION AND THEIR USE



(I)



(II)

(57) Abstract: Reactive dyes of formula (I), wherein  $Q_1$  and  $Q_2$  are each independently of the other hydrogen or unsubstituted or substituted  $C_1$ - $C_4$ alkyl,  $D_1$  is the radical of a diazo component, which is itself a mono- or dis-azo dye or contains such a dye,  $D_2$  has the same definition as  $D_1$  or is a radical of formula (II), wherein  $(Q_3)_{0-3}$  denotes from 0 to 3 identical or different substituents selected from the group halogen,  $C_1$ - $C_4$ alkyl,  $C_1$ - $C_4$ alkoxy, carboxy and sulfo and  $Z_1$  is a radical of formula  $-SO_2-Y$  (3a),  $-NH-CO-(CH_2)_m-SO_2-Y$  (3b),  $-CONH-(CH_2)_n-SO_2-Y$  (3c),  $-NH-CO-CH(Hal)-CH_2-Hal$  (3d) or  $-NH-CO-C(Hal)=CH_2$  (3e),  $Y$  is vinyl or a  $-CH_2-CH_2-U$  radical and  $U$  is a group that is removable under alkaline conditions,  $m$  and  $n$  are each independently of the other the number 2, 3 or 4, and  $Hal$  is halogen, are suitable for dyeing cellulosic or amide-group-containing fibre materials.